REMARKS

Claims 1, 5-13, 16-18 and 38-50 remain in the application for further prosecution. Claims 1 and 38 have been amended and are believed in condition for appeal. All of the pending claims have been rejected under 35 U.S.C. 103(a) as unpatentable over McNeely in view of Kellogg.

The Examiner has cited passages and drawings which he says show features of the Applicants' invention, as claimed. A closer look at these citations will make it clear that McNeely does not show a sample well, supplying a reagent well with a sample volume defined by a segment of a hydrophilic capillary which is disposed between two vents.

In general, McNeely shows devices for splitting liquid into multiple wells or combining several liquids in a single well, using passive stops. McNeely evidently preferred using hydrophobic passageways with aqueous liquids, combined with hydrophilic stops (see column 3, lines 59-62, the discussion above and the claims). McNeely does not show a sample well connected to a capillary passageway that contains a segment defining a sample volume, which is transferred to a reagent well. The following reviews the Examiner's citations of the McNeely patent.

Examiner	McNeely
o "plurality of sample well" (figs. 3a-d)	o Example 2 discusses Figs. 3a – d. No sample well is shown. Instead liquid is split into four wells using a series of four stops to assist division of the liquid. The liquid is defined by the volume of the wells, not by a segment of a capillary passageway.
o "hydrophilic capillary....in fluid communication with a sample well" (col. 5, lines 39-41)	o This citation merely makes a general statement about hydrophilic materials. No hydrophilic capillary communicating with a sample well is shown. (McNeely prefers hydrophobic capillaries)
o "segment defining a volume....disposed between two vents" (col. 4, lines 8-10; col. 4, lines 50-55; Fig. E-G; col. 9, lines 13-60; col. 11,	o Col. 4, lines 8-10 describes no segment defining a volume between two vents. Col. 4, lines 50-55 describes an air

Examiner	McNeely
lines 1-16)	vent where two liquid capillaries join. Described also at column 9, lines 19-60. No segment is defined as part of a capillary between two vents. "Figs. E-G" may refer to fig. 3E-G. If so, these figures relate to filling parallel wells that are <u>not</u> defined between two vents. Col. 11, lines 1-16 describes the use of gas to push liquid past the stops, not to define a fixed volume in a capillary passageway.
o "hydrophilic capillary stop disposed within the hydrophilic passageway for preventing sample transport" (col. 5, lines 50-59; col. 6, lines 11-47; col. 8, lines 64-68; col. 9, lines 3-14)	o Col. 5, lines 50-59 merely describes the function of a capillary stop. Col. 6, lines 11-47 continues the general description of the pressure barriers, i.e., capillary stops. Col. 8, lines 64-68 further illustrates hydrophilic and hydrophobic stops. Col. 9, lines 3-14 does not describe capillary stops, but division of a sample into multiple wells.

From the above summary, it should be clear that McNeely fails to support the Examiner's position. McNeely does not just lack the use of a hydrophilic capillary to transfer liquid, but he fails to describe a device that separates a defined volume of a larger sample and transfers that defined volume to a reagent well. Furthermore, McNeely appears to teach that use of a second liquid or a gas to force a first liquid past capillary stops. Also, he appears to use <u>hydropholic</u> passageways with water-based liquids, implying that capillary forces are <u>not</u> used to transport liquid.

Kellogg describes devices in which centrifugal force is used to transfer liquids after a sample liquid fills the group of capillaries used to define the sample volume to be tested. The sample volume is <u>not</u> defined by a portion of a hydrophilic capillary positioned between two vents, but instead the entire capillary is between a chamber at one end and the sample well at the other end (the excess sample having been sent using centrifugal force to the over flow well).

McNeely does not show essential elements of the Applicants' claimed invention and forces liquid through with other liquids or gas. Kellogg relies on increasing centrifugal force to

transfer liquid through his devices. Then, why would one skilled in the art combine McNeely and Kellogg, and what, in the absence of the Applicants'' teaching, would result? Could Kellogg's devices be operated without increasing a centrifugal force, that is, could McNeely's method of pushing liquid with another liquid or gas be applied to Kellogg? The answer should be no, because the parallel capillaries empty into a holding chamber (see Fig 2 & 3), from which the sample liquid is moved to downstream chambers by increasing centrifugal force. If a second liquid were to be used to empty the parallel capillaries, the driving liquid would be unable to move the sample in the holding chamber because it would exit the capillaries and mix with the combined sample liquids. Using gas as a driver would not be suitable since it would not be able to gather all the sample liquids and expel it from the holding chamber. Also, it would leave preferentially through the air vents. The Kellogg devices are designed to move liquid and expel air with increasing centrifugal force and therefore are not combinable with the McNeely devices. Kellogg would have to redesign his device to be operated by a driving liquid or gas and consequently would produce a different device, but not that of McNeely, since they have different objectives.

Consequently, the Examiner is asked to reconsider his rejection and allow the claims as amended. If further amendment is believed necessary, the Examiner is invited to contact the Applicants' attorney at the telephone number provided below.

Respectfully submitted,

5/8/06
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